

AK

Notice of Allowability	Application No.	Applicant(s)	
	09/874,026	JOHNSON, SAMUEL ALAN	
	Examiner	Art Unit	
	Mark Consilvio	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/23/2005.
2. ☒ The allowed claim(s) is/are 1, 3-20, 23, and 24 (renumbered 1-21).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Drawings

The drawings received on 12/06/2004 are acceptable in light of the amended claims.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Delos Larson on 9/8/2005.

The application has been amended as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An equatorial tracking platform for a telescope, operable at a plurality of latitudes, said platform comprising:

an essentially planar telescope platform, said platform having a top and bottom side, a platform base being situated below said platform top;

said platform base having a plurality of adjustable engagement angle rolling bearing elements;

said essentially planar telescope platform having attached to the bottom side a contoured rear bearing block having fabricated into its surfaces ~~varying radii segments~~ a plurality of

Art Unit: 2872

contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric;

said essentially planar telescope platform also having a front bearing surface of fixed radius and adjustable angle;

said front bearing surface and rear bearing block contacting said rolling bearing elements.

2. (Canceled)

3. (Previously presented) An equatorial tracking platform for a telescope of claim 1, further comprising motors fitted to one or more of its rolling bearing elements.

4. (Currently amended) An equatorial tracking platform for a telescope, operable at a plurality of latitudes, said platform comprising:

an essentially planar telescope platform, said platform having a top and bottom side, a platform base being situated below said platform top;

said platform base having a plurality of adjustable engagement angle rolling bearing elements;

said essentially planar telescope platform having attached to the bottom side a contoured rear bearing block having fabricated into its surfaces ~~varying radii segments~~ a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality

Art Unit: 2872

of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric;

said essentially planar telescope platform also having a front bearing surface having fabricated into its surfaces varying radii segments.

said front bearing surface and rear bearing block contacting said rolling bearing elements.

5. (Previously presented) An equatorial tracking platform for a telescope of claim 4, further comprising motors fitted to one or more of its rolling bearing elements.

6. (Currently amended) An equatorial tracking platform for a telescope, operable at a plurality of latitudes, said platform comprising:

an essentially planar telescope platform, said platform having a top and bottom side, a platform base being situated below said platform top;

said platform base having a plurality of adjustable engagement angle rolling bearing elements;

said essentially planar telescope platform having attached to the bottom side a contoured rear bearing block having fabricated into its surfaces ~~varying radii segments~~ a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric;

said essentially planar telescope platform also having a front bearing surface having fabricated into its surfaces a fixed radii segment;

said front bearing surface and rear bearing block contacting said rolling bearing elements.

7. (Previously presented) An equatorial tracking platform for a telescope of claim 6, further comprising motors fitted to one or more of the rolling bearing elements.

8. (Currently Amended) A tracking platform for a telescope, comprising:

a planar base;

a plurality of adjustable hinges attached to the planar base;

a roller mounted to each of the plurality of adjustable hinges;

a telescope platform supported by the rollers;

wherein the telescope platform comprises a rear bearing block comprising a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric.

9. (Previously presented) A tracking platform for a telescope according to claim 8, wherein the contours of differing radii are defined as a function of contact angle between the rear bearing block and the at least two rollers.

10. (Previously presented) A tracking platform for a telescope according to claim 8, further comprising:

at least one additional adjustable hinge attached to the telescope platform;

Art Unit: 2872

a front bearing surface attached to the at least one adjustable hinge in contact with at least two more of the rollers.

11. (Previously presented) A tracking platform for a telescope according to claim 10 wherein the plurality of adjustable hinges comprise a front pair of hinges and a rear pair of hinges, wherein each of the pair of front and rear hinges is adjusted from vertical by an angle of displacement equal to a latitude angle of operation.

12. (Previously presented) A tracking platform for a telescope according to claim 11 wherein the at least one additional adjustable hinge is adjusted to an angle of displacement equal to 90 degrees plus the latitude angle of operation.

13. (Previously presented) A tracking platform for a telescope according to claim 10 wherein the front bearing surface comprises a plurality of radii as a function of latitude contact angle.

14. (Previously presented) A tracking platform for a telescope according to claim 8 wherein the at least one additional adjustable hinge is attached to a top surface of the telescope platform.

15. (Previously presented) A tracking platform for a telescope according to claim 8 wherein the plurality of contours of differing radii comprise a family of contours defined as a function of latitudinal angle according to the following equation:

Art Unit: 2872

$$r_j = A + B * \sin(j);$$

wherein A is a front bearing surface radius of the telescope platform, j is the latitude angle, and B is a spacing between the front bearing surface and the rear bearing block.

16. (Currently Amended) A method of operating a telescope tracking platform, comprising:

providing a planar base, a plurality of adjustable hinges attached to the planar base, a roller mounted to each of the plurality of adjustable hinges, a telescope platform supported by the rollers, the telescope platform comprising a rear bearing block comprising a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric;

adjusting each of the plurality of adjustable hinges to an angle of displacement from vertical equal to a latitude angle of operation.

17. (Previously presented) A method of operating a telescope tracking platform according to claim 16, further comprising:

providing at least one additional adjustable hinge attached to the telescope platform and a front bearing surface attached to the at least one adjustable hinge in contact with at least two more of the rollers;

adjusting the at least one additional hinge to an angle of displacement equal to 90 degrees plus the latitude angle of operation.

18. (Currently amended) A tracking platform for a telescope, comprising:
a planar base;
a plurality of rollers attached to the planar base;
a telescope platform supported by the plurality of rollers;
wherein the telescope platform comprises a rear bearing block comprising a ~~non-conical surface comprising~~ a plurality of continuous contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric.

19. (Previously presented) A tracking platform for a telescope according to claim 18, wherein the telescope platform comprises a front bearing block comprising a plurality of continuous contours of differing radii in contact with at least two of the rollers.

20. (Currently Amended) A tracking platform for a telescope, comprising:
a base;
a plurality of rollers attached to the base;
a telescope platform supported by the plurality of rollers;
wherein the telescope platform comprises a bearing block comprising a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric.

21. (Canceled)

22. (Canceled)

23. (Currently Amended) A method of operating a telescope tracking platform, comprising:

providing a planar base, a plurality of adjustable hinges attached to the planar base, a roller mounted to each of the plurality of adjustable hinges, a telescope platform supported by the rollers, the telescope platform comprising a rear bearing block comprising a plurality of contours of differing radii in contact with at least two of the rollers, at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric;

adjusting the differing radii as a function of contact angle with the rollers to correspond with a latitude angle of operation.

24. (Previously Presented) A method of operating a telescope tracking platform according to claim 23, further comprising:

providing at least one additional adjustable hinge attached to the telescope platform and a front bearing surface attached to the at least one adjustable hinge in contact with at least two more of the rollers;

adjusting the at least one additional hinge to an angle of displacement equal to 90 degrees plus the latitude angle of operation.

25. (Canceled)

Allowable Subject Matter

Claims 1, 3-20, 23, and 24 are allowed (and have been renumbered 1-21).

The following is a statement of reasons for the indication of allowable subject matter:

Though the prior art discloses a tracking platform for a telescope, comprising: a base; a plurality of rollers attached to the base; adjustable hinges attached to the base at an angle of displacement from vertical equal to a latitude angle of operation; a telescope platform supported by the plurality of rollers; wherein the telescope platform comprises a bearing block comprising a plurality of contours of differing radii in contact with at least two of the rollers, the prior art of record fails to teach or suggest the aforementioned combination further comprising at least two of the plurality of contours comprising non-common axes and the plurality of contours are continuous and non-rotationally-symmetric.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

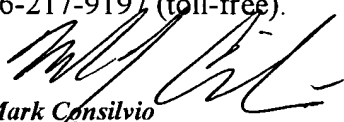
Art Unit: 2872

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Consilvio
USPTO Patent Examiner
Jefferson, 3C21 AU-2872
(571) 272-2453



DREW A. DUNN
SUPERVISORY PATENT EXAMINER